"Healthy environment, healthy people"

RECEIVED
JUN 23 2014
LEGISLATIVE ENVIRONMENTAL POLICY OFFICE

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

June 19, 2014

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND PUBLIC GROUPS

As required by state and federal rules for determining whether an Environmental Impact Statement is necessary, an environmental review has been performed on the proposed action below:

| | |
|---|---|
| Project | Choteau Wastewater Treatment System Improvements – Phase 2 |
| Location | Choteau, Montana |
| Project Number | C303097 |
| Total Cost | $6,954,000 |

The City of Choteau has identified the need to construct a new wastewater treatment facility. Improvements are needed to correct several treatment system deficiencies at the existing lagoon including: excessive sludge accumulation, insufficient hydraulic capacity, and short-circuiting issues that have resulted in numerous discharge permit violations since 2008. Due to the number of "significant non-compliance" events, the Montana Department of Environmental Quality has issued an administrative order on consent (AOC) requiring the city to make improvements to bring the system into full compliance with the Water Quality Act.

To meet the requirements of the AOC and to address the treatment system deficiencies, the city will construct a new mechanical treatment plant on land just south of the existing lagoon. The treated effluent will continue to be disinfected through use of the city's existing ultra-violet (UV) light system prior to its discharge to an unnamed man-made ditch that drains to the Teton River. The new treatment facility will consist of a new lift station, a headworks screening facility, biological basins (with anaerobic, anoxic, and aerobic basins for the removal of carbon, nitrogen, and phosphorous), secondary clarifiers, aerated sludge holding ponds, and sand filter sludge drying beds. Once the new facility is complete the existing lagoon will be drained and the accumulated sludge will be allowed to dry out for a period to not exceed two years prior to its final disposal. The preferred method of disposal will be to land apply as much sludge as possible within the footprint of the existing lagoon to minimize disposal costs. Final testing of the dried sludge for nutrients and metals will determine how much sludge can disposed of in this manner, and how much will need to be hauled off-site for final disposal. The existing lagoon site will be restored to pasture land through grading to match the natural topography and seeding with a native grass mixture or alfalfa. The new treatment plant will enable the facility to meet all current discharge permit requirements and will provide operational flexibility to meet future permit requirements such as ammonia limits, and/or total nitrogen and phosphorous limits as currently proposed for implementation in coming years. The proposed improvements will also significantly improve the operability,

reliability, and treatment capacity of the Choteau wastewater treatment facility.

Federal and State grant/loan programs will fund the project. Environmentally sensitive characteristics such as threatened/endangered species and historical sites are not expected to be adversely impacted as a result of the proposed project. Construction of the new treatment facility will require wetland mitigation of approximately 3 acres under the guidance of the US Army Corps of Engineers and a floodplain permit from the County Floodplain Coordinator. An environmental assessment (EA), which describes the project and analyzes the impacts in more detail, is available for public scrutiny on the DEQ web site (**http://www.deq.mt.gov/ea.mcpx**) and at the following locations:

Mike Abrahamson, P.E.
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-09011
mabrahamson@mt.gov

Jack Conatser, Mayor
City of Choteau
38 1st Avenue NW
P.O. Box 619
Choteau, MT 59422

Comments on the EA may be submitted to the Department of Environmental Quality at the above address. After evaluating substantive comments received, the department will revise the environmental assessment or determine if an environmental impact statement is necessary. If no substantive comments are received during the comment period, or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant, the agency will make a final decision. No administrative action will be taken on the project for at least 30 calendar days after release of the Finding of No Significant Impact.

Sincerely,

Todd Teegarden

Todd Teegarden, Bureau Chief
Technical and Financial Assistance Bureau

CITY OF CHOTEAU

PHASE 2 WASTEWATER SYSTEM IMPROVEMENTS

ENVIRONMENTAL ASSESSMENT

## I. COVER SHEET

### A. PROJECT IDENTIFICATION

| | |
|---|---|
| Applicant: | City of Choteau |
| Address: | 38 1st Avenue NW<br>P.O. Box 619<br>Choteau, MT 59422 |
| Project Number: | C303097 |

### B. CONTACT PERSON

| | |
|---|---|
| Name: | Jack Conatser, Mayor |
| Address: | P.O. Box 619<br>Choteau, MT 59422 |
| Telephone: | (406) 466-2510 |

### C. ABSTRACT

The City of Choteau, through its 2012 Wastewater System Preliminary Engineering Report (PER), prepared by DOWL HKM, has identified the need to construct a new wastewater treatment facility in order to achieve compliance with current and anticipated limits in the city's Montana Pollutant Discharge Elimination System (MPDES) permit. The City's existing wastewater treatment system was constructed in the 1950's and consists of a 27-acre single cell facultative lagoon with discharge to an unnamed man-made ditch that drains to the Teton River. Excessive sludge accumulation, insufficient hydraulic capacity, and short-circuiting issues have resulted in numerous discharge permit violations since 2008 and has led to the Montana Department of Environmental Quality (MDEQ) issuing a compliance schedule in the facility's current discharge permit requiring the city to identify their preferred treatment system alternative for meeting final effluent limits. The compliance schedule further stipulates that the improvements must be implemented by October 1, 2015. In addition, due to the number of "significant non-compliance" events, the MDEQ issued an Administrative Order on Consent (AOC) which includes stipulated fines for

additional violations until the conditions of the AOC are satisfied and the facility is back in compliance.

To address treatment system deficiencies, and to meet the requirements of the AOC and MPDES compliance schedule, the city will construct a new mechanical treatment plant on land just south of the existing lagoon. The new treatment facility will consist of a new lift station, a headworks screening facility, biological basins (with anaerobic, anoxic, and aerobic zones for the removal of carbon, nitrogen, and phosphorous), secondary clarifiers, aerated sludge holding ponds, and sand filter sludge drying beds. Once the new facility is complete the existing lagoon will be drained and the accumulated sludge will be allowed to dry out for a period to not exceed two years prior to its final disposal. The preferred method of disposal will be to land apply as much sludge as possible within the footprint of the existing lagoon to minimize disposal costs. Final testing of the dried sludge for nutrients and metals will determine how much sludge can disposed of in this manner, and how much will need to be hauled off-site for final disposal. The existing lagoon site will be restored to pasture land through grading to match the natural topography and seeding with a native grass mixture or alfalfa. The new treatment plant will enable the facility to meet all current permit requirements and will provide operational flexibility to meet future permit requirements such as ammonia limits (which will likely be imposed during the next permit cycle), and/or total nitrogen and phosphorous limits as currently proposed for implementation in coming years. The proposed improvements will also significantly improve the operability, reliability, and treatment capacity of the Choteau wastewater treatment facility.

Federal and State grant/loan programs will fund the project. The improvements, including administration, engineering, and construction are estimated to cost approximately $6,954,000. It is anticipated that the project will be funded through a low interest loan (3.0%) obtained from the Water Pollution Control State Revolving Fund (WPCSRF) loan program, a grant/loan combination from the USDA/Rural Development (RD) program, and a grant from the Treasure State Endowment Program (TSEP).

Environmentally sensitive characteristics such as wetlands, floodplains, threatened or endangered species, and historical sites were evaluated. Where adverse impacts are identified, appropriate mitigation efforts will be required and implemented. Additional environmental impacts related to land use, water quality, air quality, public health, energy, noise, and growth, were also assessed. No significant long-term environmental impacts were identified.

Under Montana law, (75-6-112, MCA), no person may construct, extend, or use a public sewage system until the DEQ has reviewed and approved the plans and specifications for the project. Under the Montana Water Pollution Control State Revolving Fund Act, the DEQ may loan money to municipalities for construction of public sewage systems.

The DEQ, Technical and Financial Assistance Bureau, has prepared this Environmental Assessment to satisfy the requirements of the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA).

D. COMMENT PERIOD

Thirty (30) calendar days

## II. PURPOSE OF AND NEED FOR ACTION

The City's existing wastewater treatment system was constructed in the 1950's and consists of a 27-acre single cell facultative lagoon with discharge to an unnamed man-made ditch that drains to the Teton River. Excessive sludge accumulation, insufficient hydraulic capacity, and short-circuiting issues have resulted in over 100 discharge permit violations since 2008, and has led to the Montana Department of Environmental Quality (MDEQ) issuing a compliance schedule in the facility's current discharge permit requiring the city to develop a plan for achieving compliance with the final effluent limits in their discharge permit. The compliance schedule further stipulates that the improvements must be implemented by October 1, 2015. In addition, due to the number of "significant non-compliance" events the MDEQ issued an Administrative Order on Consent (AOC) which includes stipulated fines for additional violations until the conditions of the AOC are satisfied and the facility is back in compliance.

## III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

In preparation for the needed treatment system improvements, the City of Choteau has replaced or rehabilitated over 25,000 feet of sewer collection pipes to reduce or eliminate as much groundwater infiltration as possible. These efforts have not only improved the structural integrity of the collection mains, but have potentially eliminated 1,000,000 gallons per day (gpd) of excessive flow to the wastewater treatment lagoon during peak high groundwater conditions allowing the new treatment system to be sized as small as possible, thereby reducing associated construction costs.

The city holds an easement for the construction/expansion of the wastewater treatment system on a parcel of state land just south of the existing lagoon. While other areas were considered for relocation of the treatment facility, none proved to be viable options, so the new facility will be located just south of the existing lagoon. This site does not present insurmountable constructability or feasibility concerns, and is adequately sized for any of the alternatives considered below.

All alternatives discussed below will require/include the following improvements unless otherwise noted:

- Due to the flat topography of the area, construction of the treatment facility south of the existing lagoon will require the installation of a new lift station not only to convey the wastewater to the new facility, but to provide adequate hydraulic

grade to allow the wastewater to flow through the new treatment process and existing disinfection facility by gravity. The lift station will require that the existing western sewer trunk main to the lagoon be rerouted to the eastern sewer trunk main where the raw wastewater can enter the wet well for pumping. A triplex submersible style lift station, with variable frequency drives, would be utilized to provide pumping flexibility and energy savings as flows change seasonally due to infiltration. An emergency power generator would also be provided. The force main would route along the east and south sides of the existing lagoon and terminate in a gravity manhole prior to the headworks facility.

- A new parshal flume will be utilized to totalize and record all influent flow to the proposed treatment plant.

- All mechanical treatment alternatives would include a new headworks facility to facilitate the downstream treatment processes and to protect mechanical equipment. To remove rags, paper, and debris from the wastewater the headworks facility would consist of an automatic screening device, a manual bar screen for backup, and a grit removal system. A headworks facility would not be required for the aerated lagoon alternatives due to the large sludge storage volume provided in the bottom of each lagoon cell and a lack of mechanical equipment in the aeration basin that could be impacted by rags and debris.

- Laboratory and office space would be incorporated into the headworks building to allow for compliance testing and for process/operational control.

- In 2010, the city constructed a new ultra-violet light (UV) disinfection system to meet bacterial limits in the current discharge permit. All alternatives considered below will utilize the existing UV disinfection system and outfall line. The discharge of treated effluent to an unnamed man-made ditch that drains to the Teton River will continue.

## A. TREATMENT ALTERNATIVES

Seven alternatives for addressing Choteau's treatment system needs were evaluated. These include:

T-0. No Action
T-1. Mechanical Oxidation Ditch
T-2. Biolac Treatment System
T-3. Sequencing Batch Reactor
T-4. STM Aerotor/Biowheel
T-5. Aerated Lagoons with Bio-Domes™
T-6. Aerated Lagoons with Spray Irrigation

T-0. NO ACTION - The no-action alternative considered making no improvements to the existing wastewater treatment system. The city's single-cell facultative lagoon has surpassed its useful life and is

repeatedly out of compliance with their MPDES discharge permit. The frequency of the violations has led the MDEQ to issue an AOC mandating completion of necessary improvements to address their permit discharge limits and bring the system back into compliance. Therefore, the no-action alternative was not considered to be a viable option, and was not given further consideration.

T-1. MECHANICAL OXIDATION DITCH - This alternative consists of constructing an oxidation ditch (bioreactor) and secondary clarifiers to provide biological treatment of the wastewater. The bioreactor is an oval shaped concrete structure with an operating depth of 8 feet. The bioreactor would contain anaerobic, aerobic and anoxic zones for the biological removal of carbon, nitrogen, and phosphorous. Oxygen, to promote biological activity would be provided to the bioreactor through the use of vertical shaft driven mixers. Ammonia will be removed from the wastewater through nitrification, which is a biological process where ammonia is converted to nitrate in the presence of oxygen. An anoxic zone (i.e., the absence of free oxygen) will enhance denitrification, which is a biological process where the nitrate produced from nitrification is converted to nitrogen gas which is released to the atmosphere. While adding the anoxic zone for denitrification will increase capital costs for tankage, it will lower operational costs by decreasing the amount of oxygen needed to treat the wastewater. A further benefit is that it would remove total nitrogen (organic, ammonia, and oxidized) from the wastewater should it become necessary in future permits. The anaerobic zone will allow for biological phosphorous reduction. The secondary clarifiers will allow solids to settle out of the wastewater prior to disinfection. Two concrete clarifiers would be constructed and would include solids collection and wasting equipment consisting of sludge scraper systems and pumps for the removal of sludge. A portion of the sludge would be returned to the front of the bioreactor and the remainder would be wasted to the solids handling processes. The clarifiers would be covered to prevent freezing.

T-2. BIOLAC TREATMENT - This alternative consists of constructing a biolac treatment system and secondary clarifiers to provide biological treatment. The biological basin would be an earthen pond, lined with a synthetic liner to prevent leakage, with an operating depth of 10 feet. The aeration delivery system would consist of buoyant and flexible aeration pipes with multiple suspended drop pipes connected to fine bubble diffuser membrane units. The aeration system provides both mixing and oxygen transfer. Blowers for aeration would be housed inside a building. The aeration system can be cycled on and off to create anoxic and aerobic zones for nitrogen removal as discussed in alternative T-1. The secondary clarifiers would allow solids to settle out of the wastewater prior to disinfection. Two concrete clarifiers would be constructed and would include solids collection and wasting equipment consisting of

sludge scraper systems and pumps for the removal of sludge. A portion of the sludge would be returned to the front of the bioreactor basin to ensure an adequate concentration of biomass to optimize treatment, and the remainder would be wasted to the solids handling processes. The clarifiers would be covered to prevent freezing.

T-3. SEQUENCING BATCH REACTOR (SBR) – This alternative consists of constructing a Sequencing Batch Reactor (SBR) to provide biological treatment. SBR systems are a fill and draw activated sludge wastewater treatment system that utilizes a single basin for treatment and clarification. This results in a smaller "footprint" than typically needed for a conventional activated sludge facility since separate secondary clarifier basins would not be needed. To provide continuous treatment, SBR systems typically contain two or more concrete basins that are operated with alternating cycles. SBRs generally contain the following phases of operation, which occur sequentially on a cyclical basis: fill, react, settle, decant, and idle. As the wastewater fills the basin it will be exposed to anaerobic, aerobic, and anoxic conditions that would result in BOD, nitrogen and even some phosphorous removal. After treatment, the basin content would be allowed to settle and the supernatant (clear water) decanted. Since the decant rate can be very high (2,000 gpm), to prevent the need of oversizing downstream equipment, a post equalization basin would be utilized to buffer the flow rate. Blowers would be housed in a mechanical room in the SBR building. Because all biological processes occur within the same basin, return sludge pumps and lines are not needed. With each cycle a portion of the settled solids would be removed from the basin and sent to the solids handling processes.

T-4. STM AEROTOR/BIOWHEEL - This alternative consists of constructing a mechanical "STM AEROTOR/BIOWHEEL" (bioreactor) and secondary clarifiers to provide biological treatment. Two bioreactors would be constructed for redundancy and maintenance purposes. Each bioreactor would consist of a rectangular concrete structure with an operating depth of 10 feet and would contain aerobic and anoxic zones for the biological removal of carbon and nitrogen. Oxygen would be provided to the bioreactor through the use of a series of large paddle wheels. As the paddle wheels rotate a portion of the paddles becomes exposed to the atmosphere, and hollow compartments within each paddle entrap air, pulling the air under the surface where it is released at the bottom of the rotation. The wheel provides both mixing and oxygen transfer. Ammonia would be removed from the wastewater in the aerobic zone through nitrification. The anoxic zone would enhance denitrification (removal of total nitrogen) from the wastewater should it become necessary in future permits. The bioreactors would be covered to prevent ice build-up on the drive chain which can damage the equipment as the wheel rotates. The secondary clarifiers would allow solids to settle out of the wastewater prior to disinfection. Two concrete clarifiers would be constructed and

would include solids collection and sludge wasting equipment consisting of sludge scraper systems and pumps. A portion of the sludge would be returned to the front of the bioreactor basin to ensure an adequate concentration of biomass to optimize treatment and the remainder would be wasted to the solids handling processes. The clarifiers would be covered to prevent freezing.

T-5 AERATED LAGOONS WITH BIO-DOMES™ – This alternative consists of constructing an aerated lagoon system equipped with Bio-Domes to provide biological treatment. Each Bio-Dome contains an aeration line and a synthetic packing media that allows nitrifying bacteria to grow to enhance ammonia removal through the nitrification process. The treatment system would consist of three aerated cells with 15-foot operating depths. Aeration would be provided in the lagoons through the use of blowers and air diffusion equipment. The aeration system would be tapered throughout the system. The final lagoon would have a non-aerated, quiescent zone to allow solids to settle out prior to the disinfection. Approximately 160 Bio-Domes would be installed in cells 2 and 3. Due to shallow groundwater in the area of the proposed treatment site, construction of the aerated lagoon embankments would require the import of 70,000 cubic yards of material. The treatment system would occupy approximately 6 acres. The lagoons would be lined with a synthetic liner to prevent leakage. A small building would be constructed to house the blowers for the aeration system and a small laboratory for sampling equipment and records maintenance. Sludge would accumulate in the bottom of each cell and would need to be removed periodically (typically every 15 to 20 years).

T-6. AERATED LAGOONS WITH SPRAY IRRIGATION - This alternative consists of constructing an aerated lagoon system to provide biological treatment and spray irrigation of crops for the disposal of treated wastewater. The treatment system would be identical to that described in alternative T-5. However, a 25-acre storage lagoon (103 million gallon capacity) would be constructed to hold treated wastewater when irrigation is not possible (7 to 8 months). Treated wastewater would be land applied at agronomic rates (for nitrogen) and would require at least 260 acres for the irrigation of alfalfa. An effluent pump station (to get the treated effluent to the storage lagoon), and an irrigation pump system, along with irrigation forcemain and spray equipment, would be installed as well. The city would need to purchase the land for irrigation, or enter into a long-term lease (20 years minimum) with the landowner of the irrigation site.

B. SLUDGE MANAGEMENT ALTERNATIVES

All of the above mentioned treatment alternatives (except alternatives T-5 and T-6) will produce waste activated sludge that must be treated and disposed. Two alternatives for solids handling/stabilization were evaluated. These included:

S-1. Aerobic Digesters
S-2. Sludge Storage Ponds

S-1. AEROBIC DIGESTERS – This alternative consists of constructing two concrete sludge holding tanks (aerobic digesters) to stabilize the sludge. Oxygen would be provided to each digester using positive displacement blowers that would be housed in a building. Each tank would contain piping that would allow the supernatant to be decanted back to the headworks facility. After adequate treatment under aeration, stabilized sludge would be treated with polymer and pumped to a sludge dewatering container, or sent to sludge drying beds. Once the solids have been dewatered, the solids would be disposed of by land application, or sent to a landfill, either of which are acceptable means of disposal and regulated by the Environmental Protection Agency (EPA).

S-2. SLUDGE STORAGE PONDS - This alternative consists of constructing sludge storage ponds to stabilize the sludge. Two earthen ponds (500,000 gallon capacity each) would be constructed within the footprint of the existing lagoon just north of the existing southern dike. The ponds would be lined with a synthetic liner to prevent leakage. A surface aerator would be installed predominantly for odor control and to provide oxygen for sludge stabilization. Surface water from each pond would be decanted back to the headworks facility. After adequate treatment under aeration, stabilized sludge would be treated with polymer and pumped to a sludge dewatering container, or sent to sludge drying beds. Once the solids have been dewatered, the solids would be disposed of by land application, or sent to a landfill, either of which are acceptable means of disposal and regulated by the EPA.

## C. COST COMPARISON - PRESENT WORTH ANALYSIS

The present worth analysis is a means of comparing alternatives in present day dollars and can be used to determine the most cost-effective alternative(s). An alternative with low initial capital cost may not be the most cost efficient project if high operation and maintenance costs occur over the life of the alternative. An interest rate of 6.0% over the 20-year planning period was used in the analysis. Table 1 provides a summary of the present worth analysis of the feasible alternatives considered.

| TABLE 1<br>ECONOMIC EVALUATION OF FEASIBLE ALTERNATIVES | | | | | |
|---|---|---|---|---|---|
| **Alternative Number** (From Above) | **Alternative** | **Capital Cost** | **Annual O&M** | **Salvage Value** | **Total Present Worth** |
| T-1 | Mechanical Oxidation Ditch | $5,030,000 | $145,283 | $773,490[1] | $6,740,000 |
| T-2 | Biolac Treatment System | $4,868,000 | $146,533 | $744,100[1] | $6,600,000 |
| T-3 | Sequencing Batch Reactor | $5,430,000 | $155,978 | $986,430[1] | $7,210,000 |
| T-4 | STM Aerotor/Biowheel | $5,063,000 | $147,858 | $809,330[1] | $6,790,000 |
| T-5 | Aerated Lagoons w/ Bio-Domes | $5,285,000 | $132,441 | $266,205[2] | $6,980,000 |
| T-6 | Aerated Lagoons w/ Spray Irrigation | $9,240,000 | $177,636 | $344,458[2] | $11,510,000 |
| | | | | | |
| S-1 | Aerobic Digesters | $1,204,000 | $31,344 | $175,740[1] | $1,570,000 |
| S-2 | Sludge Storage Ponds | $465,977 | $15,482 | $104,400[1] | $ 640,000 |

1. Based on a 20-year life cycle cost
2. Based on a 50-year life cycle cost

D. BASIS OF SELECTION OF PREFERRED ALTERNATIVE

Selection of the preferred alternative was based upon several criteria, both monetary and non-monetary. The ranking criteria considered are shown in Table 2. Each alternative was assigned a ranking score 1 to 5 for each category with 1 being the most favorable and 5 being the least favorable. The ranking factors were then divided into the relative weight of importance assigned to each evaluation criteria. The weighted rank scores were then summed, resulting in a weighted rank total score, the greatest score indicating the highest ranking. As shown in the ranking criteria matrix, Alternative T-1 (Mechanical Oxidation Ditch) ranked the highest, primarily due to treatment reliability, flexibility, and performance. Even though it does not have the lowest present worth cost, based on the overall score, and sound engineering judgment, alternative T-1 was selected to provide advanced wastewater treatment for the City of Choteau. In addition, the city selected the sludge storage ponds with drying beds (Alternative S-2) for sludge handling and stabilization. Alternative S-2 was selected primarily due to its lower present worth cost, simpler operation and maintenance requirements, and easier constructability.

## TABLE 2
## RANKING CRITERIA FOR TREATMENT ALTERNATIVES

| Criteria | Criterion Weight | Alt T-1: Mechanical Oxidation Ditch | | Alt T-2: Biolac Treatment System | | Alt T-3: Sequencing Batch Reactor | | Alt T-4: STM Aerotor / Biowheel | | Alt T-5: Aerated Lagoons w/ Bio-Domes™ | | Alt T-6: Aerated Lagoons w/ Spray Irrigation | | Alt S-1: Aerobic Digesters | | Alt S-2: Sludge Storage Ponds | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Score | Points | Score | Points | Score | Points | Score | Points | Score | Points | Score | Points | Score | Points | Score | Points |
| Treatment Process Flexibility, Performance, Stability | 25 | 1 | 25 | 2 | 12.5 | 2 | 12.5 | 1.5 | 16.7 | 4 | 6.3 | 2 | 12.5 | 1 | 25 | 2 | 12.5 |
| Operation and Maintenance Complexity | 20 | 2 | 10 | 3 | 6.7 | 4 | 5 | 2 | 10 | 1 | 20 | 2 | 10 | 2 | 10 | 1 | 20 |
| Construction Challenges | 10 | 2 | 5 | 3 | 3.3 | 4 | 2.5 | 1 | 10 | 3 | 3.3 | 4 | 2.5 | 2 | 5 | 1 | 10 |
| Environmental Impacts | 10 | 1 | 10 | 1 | 10 | 1 | 10 | 1 | 10 | 3 | 3.3 | 4 | 2.5 | 1 | 10 | 1 | 10 |
| Regulatory Issues | 10 | 1 | 10 | 1 | 10 | 1 | 10 | 1 | 10 | 5 | 2 | 1 | 10 | 1 | 10 | 2 | 5 |
| Cost Effectiveness | 25 | 2 | 12.5 | 1 | 25 | 2.5 | 10 | 2 | 12.5 | 1 | 25 | 3 | 8.3 | 2 | 12.5 | 1 | 25 |
| | | | | | | | | | | | | | | | | | |
| **Weighted Total** | | | **72.5** | | **67.5** | | **50** | | **69.2** | | **59.9** | | **45.8** | | **72.5** | | **82.5** |

The estimated administration, engineering, and construction cost for the recommended alternatives (Alternative T-1 and S-2) is $6,954,000. The city will fund the project through a $3,043,000 low interest loan (3.00%; 20-year term) obtained from the Water Pollution Control State Revolving Fund (WPCSRF) loan program, a $1,000,000 grant and $2,161,000 loan from the USDA/Rural Development (RD) program, and a $750,000 grant from the Treasure State Endowment Program (TSEP).

Sewer rates will need to be raised by 145% before construction is complete to pay for the proposed improvements. The financial impact of this project on the system users is shown in Table 3. After the rate increases are imposed, residential user rates will increase from $25.47/month to approximately $62.50/month. Based on the EPA guidance for project affordability, the proposed project will result in a monthly cost per household that is greater than 2% of the monthly median household income, and therefore, may impose a substantial economic hardship on household income.

| Table 3<br>PROJECT AFFORDABILITY | |
|---|---|
| Monthly user cost[1] | $62.50 |
| Monthly median household income (mMHI)[2] | $2,770.08 |
| User rate as a percentage of mMHI | 2.25 % |

[1] E-mail correspondence with project engineer, April 2014
[2] Based on 2010 census data

## IV. AFFECTED ENVIRONMENT

### A. PLANNING AREA / MAPS

The City of Choteau is located 20 miles east of the Rocky Mountains in the Teton River Valley Plain area in Teton County along State Highways 287 and 89 (see Figure 1). The planning area encompasses the City of Choteau as well as adjacent areas that may be developed in the near future. The city boundary and planning area are shown in Figure 2. The proposed project involves construction of a headworks facility, a mechanical oxidation ditch, two secondary clarifiers, two sludge holding ponds, and sand filter drying beds (see Figure 3).

The final lift station location will be located in one of the multiple locations under consideration (see Figure 4). Options 1 and 4 would place the lift station within the existing city right-of-way in 7th Street SW where no additional easements or property acquisition would be required. Options 2 and 3 would place the lift station adjacent to the city's existing access road and sewer main easement, but would require procurement of additional easement or procurement of enough land for the lift station site. Option 5 would place the lift station on State land for which the city holds an easement for the wastewater treatment facilities.

Options 2, 3 and 5 would result in benefit to future development of the property south of 7th Street SW. Options 1 and 4 would make sewer service difficult for future development to the south of 7th St. SW. The farther south the site, the more beneficial in regards to the ability to provide gravity flow sewer service to adjacent properties. Option 5 is expected to be within wetlands and the total area of the site would require wetland mitigation similar to the overall wastewater treatment site south of the lagoon. Final site selection will depend upon negotiation, or interest from the landowner adjacent to the access road and considerations of cost associated with Option 5 in regards to the additional wetland mitigation anticipated.

Construction is scheduled to begin in spring 2015 and will be complete in 2017.

B. FLOW PROJECTIONS

The wastewater system experiences an extreme amount of infiltration into the collection system from the relatively high and seasonally fluctuating groundwater table. The city has replaced, or rehabilitated, over 25,000 feet of sewer collection pipes to reduce or eliminate as much groundwater infiltration as possible. These efforts have potentially eliminated 1,000,000 gallons per day of excessive flow to the wastewater treatment lagoon during peak high groundwater conditions. Even with these flow reductions, the current average flow to the wastewater treatment facility is estimated to be 421,000 gallons per day which results in a net wastewater flow of 250 gallons per capita per day (gpcd). This per capita flow rate greatly exceeds the EPA "trigger" value of 120 gpcd, which is considered to include an acceptable level of infiltration based on economic considerations, and is two and a half times higher than what would normally be expected from a community with the population of Choteau. Unfortunately, the city is reaching the point of diminishing return in rehabilitation of the collection system, and will likely never reach the EPA value stated above just due to the very nature of the community residing and built within an alluvial deposit with massive volumes of groundwater moving through area. A large portion of the remaining groundwater infiltration is suspected to originate from private service lines and sump pumps which are both out to the city's control.

Based on recent census data, Choteau has experienced a slight decrease in population over the last ten years. The population of Choteau and the surrounding area is primarily supported by jobs provided by farming, ranching, and forestry. While at this time there are no major developments within Choteau that would lead to an increase in the city's population, it is the feeling that the population has stabilized with a possibility of a slow increase into the forseeable future associated with the oil and gas development industry. For planning purposes the annual growth rate in the city is estimated to be 1.0% annually through 2036 and results in a design population of approximately 2,300 people.

| Table 4<br>PROJECTED POPULATION AND WASTEWATER FLOWS | | | |
|---|---|---|---|
| Year | Population | Average Daily Flow (gal/day) | Peak Month Flow (gal/day) |
| 2010 | 1,684[1] | 421,000 | 505,200 |
| 2036 | 2,300[2] | 482,000[3] | 578,000[3] |

[1] Montana Department of Commerce 2010 census data.
[2] Assumed 1.0% growth annually
[3] Estimated values

C. NATURAL FEATURES

Within the city, land use is predominantly residential, while land outside the city limits is primarily open rangeland and farmland. The topography consists of rolling terrain created by intense glaciations that have created deep silt and gravel glacial moraine deposits and alluvial plains. The topography enables a conventional gravity system to transport wastewater to the existing treatment system located south of town without the use of a lift station. Soils in the Teton River Valley consist of deposits of loam gravel clay mixtures, sandy loam and loam and clay from the surface to a depth of about 16 feet. Below that layer there is a layer of sand and gravel to a thickness for 20 to 30 feet below the surface. Below the sand and gravel layer there is a blue shale layer. A geotechnical report for the location of the new wastewater treatment facility states that the soil profile consists of a lean clay with sand topsoil to a depth of 1.5 feet, a thin layer of underlying clay between 1.5 and 2.2 feet, sand/gravels present 3 to 10 feet with an underlying 5-8 feet thick layer of stiff lean clay supported by sand/gravel, and Bearpaw shale present at 24 feet below the surface.

The City of Choteau wastewater treatment plant discharges to an unnamed man-made ditch that flows 0.3 miles to the Teton River. The Teton River flows along the western and southern sides of the city. The segment of the Teton River to which the plant discharges is classified as a B-1 water body. Waters classified as B-1 are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation, growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

Groundwater is located in the subsurface sand, silt and gravel deposits of the Teton Valley aquifer. This aquifer is underlain by an impervious subsurface stratum formed by a hardpan layer of aggregates cemented by flaciated limestone byproducts. Groundwater flows parallel to the Teton River in a down-valley, southerly direction. The groundwater is recharged by down gradient groundwater flow from upgradient aquifer gravels; seepage through the bed of the Teton River; seepage from irrigation ditches; direct infiltration of precipitation; and possible discharge from the Virgelle Sandstone. The depth to groundwater in the area where the proposed wastewater treatment facility is to be located is approximately 3-4 feet.

The climate in Choteau is characterized as semi-arid. Choteau's average high temperature is 79°F, but can occasionally top 100°F during the summer months. The average low temperature is approximately 13°F, with periods of sub-zero temperatures at times during the winter months. The average annual precipitation rate is 11.61 inches per year with over half of that falling during the months of May, June, and July. The average evaporation rate in the area is 39 inches per year.

## V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

### A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Land Use/Prime Farmland – The new treatment facility will occupy approximately 2 acres of land just south of the existing lagoon, which is currently used for livestock grazing. The sludge storage ponds and sand filter drying beds will be constructed within the footprint of the existing lagoon and will occupy approximately 1.5 acres. Ultimately, any new area utilized for this project will be offset with the area of the existing lagoon system which will be reclaimed to its native state (i.e., restoration of the natural grade and the establishment of native vegetation). The rehabilitated site could be utilized for grazing, thus increasing the amount of grazing land available in the area (net gain of approximately 25 acres). The Natural Resource Conservation Service (NRCS) indicated that the new facility will be constructed on land classified as Farmland of Statewide importance. Therefore the US Department of Agriculture will require a "Farmland Conversion Impact Rating" form be filed with the NRCS as a part of this project.

2. Floodplains – Based on floodplain maps for the area, the city's new wastewater treatment facility will be located within the designated 100-year floodplain. Spring Creek, which runs through the northeast edge of town, experiences flooding on occasion from spring time runoff. When this occurs, it is possible for flood waters to enter the collection system through manhole covers. The existing wastewater treatment lagoons are protected from flooding by the lagoon dikes which extend 10 feet higher than the surrounding ground elevation. The new treatment system will be similarly protected from flooding, as it will be elevated so that all treatment system equipment is above the existing lagoon dike elevation. Construction of the new facility will require the placement of fill material and concrete structures within the 100-year floodplain and will require permitting from the Corps of Engineers and the local floodplain administrator. The new treatment facility should not impact the natural course of the surrounding area during a flooding event. The local floodplain coordinator for Teton County has indicated a floodplain permit would be required for facilities constructed in the floodplain.

3. Wetlands - Some of the areas surrounding the existing treatment facility qualify as wetlands due to the hydric soils in the area and hydrophilic plant growth (e.g., cattails). The discharge ditch that conveys effluent for the treatment facility to the Teton River also passes through some wetland areas. In 2010, as part of the UV disinfection project, wetlands delineation was completed for the land south of the existing lagoon. It was determined that this area from the existing lagoon all the way to the Teton river is classified as sub-irrigated wetlands, and that any impacts to this area will require mitigation offsets for any wetland area that is permanently covered or taken. The proposed project will involve work within jurisdictional waters of the U.S. and will require authorization under DA Nationwide Permit 39 found in the March 12, 2007 Federal Register (Vol. 72, No. 47, 11092), Reissuance of Nationwide Permit 39 (NWP 39). To qualify for NWP 39 authorization, the city must submit to the Corps of Engineers (COE) the required information addressing the General and Regional Conditions listed in the NWP 39 Fact Sheet. If the wetland acreage impacted is less than 0.5 acres the project will qualify under the NWP 39 authorization, however if the projects impact more than 0.5 acres an Individual Permit will be needed for the project and an additional Public Notice Process and Section 404(b)(1) analysis will be required. A wetland mitigation plan will need to be approved by the COE. The required mitigation ratio is to provide 1.5 units of new wetland area for every unit permanently impacted. Since the new treatment facility could potentially occupy approximately 2 acres of wetland area, 3 acres of new wetland area would need to be provided to mitigate the impacts of the proposed project. The existing lagoon will be abandoned, the dikes breached, and seeded to natural vegetation. Due to high groundwater in the area, it is believed that a majority of this reclaimed area (20+ acres) could revert to a sub-irrigated meadow. The required mitigation area could be developed within this reclaimed area or the city could purchase mitigation credits to account for this impact. The final approach decision will be based upon the respective costs versus and the associated risks of the city completing and maintaining a separate mitigation area.

4. Cultural Resources – No impacts to cultural resources are anticipated. All construction activity will occur on previously disturbed ground or on land that is currently utilized for grazing. No structures will be impacted. The State Historical Preservation Office was contacted regarding the proposed improvements and their comments are summarized in *Section X* of this report.

5. Fish and Wildlife – The Montana Natural Heritage Program indicated that the Great Blue Heron, the Bald Eagle, the Golden Eagle, the Ferruginous Hawk, and McCown's Longspur are animal species of concern in the Choteau area. The project will not affect any critical wildlife habitats, nor will any known endangered species be affected. The new treatment system will occupy approximately 2 acres on adjacent property south of

the existing lagoon that is currently used for livestock grazing. Construction of the new facility will require that fill material and concrete structures be placed on this land. Once the new facility is operational, the existing lagoon will be abandoned, the dikes breached, and seeded to natural vegetation. This reclaimed area (20 + acres) will likely revert to a sub-irrigated wetland and serve as wildlife habitat. The improved water quality that will be discharged from the new treatment facility will likely be beneficial to fish, wildlife, and habitat resources in the Teton River. The US Fish and Wildlife Services and Montana Fish Wildlife and Parks were contacted regarding the proposed improvements and their comments are summarized in *Section X* of this report.

6. Water Quality —The proposed mechanical treatment facility is a more efficient and flexible treatment process that will improve the quality of water discharged to the Teton River. The proposed project should prevent water quality standards violations by providing ammonia removal and adequate secondary treatment as required in the current discharge permit.

The existing wastewater treatment facility is designed to serve a population of 2,000 with a design flow of 0.3 MGD. Those numbers were used to establish the facility's baseline allocated non-degradation load limits (BOD and TSS) in the MPDES discharge permit. Any increase above these baseline allotments is subject to the provisions of Montana's Non-Degradation Policy 75-5-303, MCA, and would require the facility to provide a higher level of treatment for compliance. Recent discharge data has shown that the existing facility is currently discharging approximately 15% of the allotted BOD load and 9% of the allotted TSS load and therefore well within their allotted load allocation for those parameters.

*A Water Quality Management Plan & TMDLs for the Teton River Watershed* was completed by Montana Department of Environmental Quality in September 2003 and approved by the EPA. The *Plan* established a TMDL for total suspended solids (TSS) discharged from the Choteau WWTF at 100 mg/L or 250 pounds per day which the new facility should be able to easily meet. With limited growth into the foreseeable future and improved treatment performance, compliance with allocated load limits associated with non-degradation, TMDLs, and potential nutrient limits are not expected to be an issue.

The proposed project may also improve groundwater quality in the area as well. While actual leakage of untreated wastewater from the existing lagoon has not been documented, it is suspected. The new facility will be constructed with water tight basins thereby ensuring that there will be no impacts to groundwater.

Impacts to the nearby surface stream associated with storm water runoff during construction will have to be mitigated with appropriate best management practices and carefully maintained during construction.

7. Air Quality - Short-term negative impacts on air quality are expected to occur during construction from heavy equipment in the form of dust and exhaust fumes. Proper construction practices will minimize this problem with the project specifications requiring dust control. The new facility will produce some odors associated with the wastewater treatment process, but these will be reduced as much as possible through the use of aeration equipment. The prevailing wind direction in the area also helps to minimize the influence of odors upon residents in the area.

8. Public Health - Public health will not be negatively affected by the proposed project. The proposed treatment facility improvements will reduce nutrients to the Teton River, ultimately resulting in better water quality downstream of the wastewater treatment plant discharge point. Improved sewage treatment will reduce the potential to pollute ground and surface waters.

9. Energy – An increase in energy consumption will occur after the new treatment plant is constructed. Energy consumption will be minimized as much as possible through the use of energy efficient equipment (pumps, aeration equipment, lighting, etc.).

   The consumption of energy resources directly associated with construction of the recommended improvements is unavoidable, but will be a short-term commitment.

10. Noise - Short-term impacts from excessive noise levels may occur during the construction activities. The construction period will be limited to normal daytime hours to avoid early morning or late evening construction disturbances. The headworks equipment will be housed in a building, and the treatment facility will be located in a relatively remote area so no significant long-term impacts from noise will occur.

11. Sludge Disposal – Once the new treatment facility is operational, water in the existing lagoon will be removed so the sludge can be land applied to the surface of the reclaimed wastewater lagoon site. The lagoon will be drawn down as much as possible through the use of the existing discharge structure. The removal of any remaining water in the lagoon will likely occur through land application to either (or possibly both) the state land south of the existing lagoon (on which the city holds an easement) or to private property to the east that already utilizes the lagoon effluent during the irrigation months. In either case, the wastewater will be applied at agronomic rates (for nitrogen), and will have a 200 foot buffer zone between the application site and any points of public access. Land

application will only be needed on a short-term basis (possibly 2 to 3 months) depending on the final volume of water that must be removed. The final spray irrigation disposal plan will be reviewed and approved by the MDEQ prior to its implementation. The disposal of sludge from the existing lagoon will be through land application in accordance with EPA's 503 Regulations under general permit MTG6500000 via the use of a Notice of Intent filed with Region VIII EPA. Once the sludge has dried (for a period to not exceed two years), the preferred method of disposal will be to land apply as much sludge within the footprint of the existing lagoon as possible to minimize disposal costs. Final testing of the dried sludge for nutrients and metals will determine how much sludge can disposed of in this manner, and how much will need to be hauled off-site for final disposal. The volume of sludge that can be applied on-site will be based on the agronomic uptake rate of the vegetation that will be planted and the soils at the site. The existing lagoon site will be restored to pasture land through grading to match the natural topography and seeding with a native grass mixture or alfalfa. The final sludge disposal plan (i.e., Notice of Intent) must be submitted to the EPA and MDEQ for review and approval at least 30 days prior to disposal.

The new wastewater treatment facility will utilize sludge storage ponds (equipped with aerators for odor control) and sludge drying beds to treat, stabilize, and dewater the sludge. The dried sludge will either be land applied in accordance with EPA's 503 Regulations, or disposed of in an approved Class II landfill in accordance with EPA's 258 Regulations *Criteria for Municipal Solid Waste Landfills.* It is the city's preference that the dried biosolids would be available for use by interested landowners, which is not expected to be a problem in this area. The final "long-term" sludge disposal plan must be submitted to the EPA and DEQ for review and approval at least 90 days prior to disposal.

12. Environmental Justice – Environmental Justice Executive Order 12898: The proposed project will not result in disproportionately high or adverse human health or environmental effects on minority or low income populations. No disproportionate effects among any portion of the community would be expected.

13. Wild and Scenic River Act – The proposed project will not impact any rivers designated as wild and scenic by Congress or the Secretary of the Interior.

14. Growth - The 20-year design population is based on a growth rate of approximately 1.0 percent per year. The proposed improvements should be capable of serving a population of 2,300. The anticipated increase in population and development in the service area will result in increased flows to the WWTP. Improvements to the WWTP will be a positive feature for the community providing additional treatment capacity that will allow

the city to manage its growth in a proactive manner and promote urbanization within its service area.

15. Cumulative Effects - The increased treatment capacity at the wastewater treatment plant may result in secondary and/or cumulative impacts due to growth of the community and expansion of the service area. Secondary impacts associated with housing, commercial development, solid waste, transportation, utilities, air quality, water utilization, and possible loss of agricultural and rural lands may occur. These secondary impacts are uncertain at this time, and therefore, cannot be directly addressed in the EA. However, these impacts will need to be managed and minimized as much as possible through proper community planning. There are several existing city, county and state regulations already in place (i.e., zoning regulations, comprehensive planning, subdivision laws, etc.) that control the density and development of property with regards to water supply, sewage disposal, solid waste disposal, transportation, and storm drainage system.

B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction related impacts (i.e., noise, dust, etc.) will occur, but should be minimized through proper construction management. Energy consumption during construction and energy for operation of the new mechanical treatment plant cannot be avoided.

## VI. PUBLIC PARTICIPATION

Problems associated with the wastewater system have been discussed at council meetings numerous times over the years. A public hearing to discuss increased sewer rates associated with the treatment system improvements was held on March 20, 2012. The engineer discussed the purpose and need for the project, the treatment system alternatives considered, associated costs, funding sources, and the impact to user rates. In addition a newsletter was sent out to all city residents to explain the proposed upcoming projects and the need to increase sewer rates to assist in paying for the projects. Residents expressed their concerns about the increased costs and their ability to pay for the new system. Council members inquired about engineering fees, sludge disposal, and expandability of new facility to accommodate future growth. The city council accepted and approved (through Resolution No. 747) the findings and recommendations of the PER on April 17, 2012.

## VII. AGENCY ACTION, APPLICABLE REGULATIONS AND PERMITTING AUTHORITIES

All proposed improvements will be designed to meet state standards in accordance with Design Standards for Public Sewage Systems (Circular DEQ-2), and will be constructed using standard construction methods. Best management practices will be implemented to minimize or eliminate pollutants from leaving the construction site. No additional permits will be required from the State Revolving Fund (SRF) section of the DEQ for this

project after the review and approval of the submitted plans and specifications. However, coverage under the storm water general discharge permit and groundwater dewatering discharge permit, are required from the DEQ Water Protection Bureau prior to the beginning of construction. A Section 404 permit from the U.S. Army Corp of Engineers will be required for work associated with construction of the treatment system in the area south of the existing lagoon (sub-irrigated wetland). A 124 Permit from the Department of Fish, Wildlife and Parks and a 318 Authorization from the Department of Environment Quality will be required for any work that will impact surface water and will be obtained if necessary. A permit for construction in the floodplain will be required from the local floodplain administrator.

## VIII. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

[ ] EIS [ ] More Detailed EA [ X ] No Further Analysis

Rationale for Recommendation: Through this EA, the DEQ has verified that none of the adverse impacts of the proposed Choteau Phase 2 Wastewater Treatment System project are significant. Therefore, an environmental impact statement is not required. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607, 17.4.608, 17.4.609, and 17.4.610. The EA is the appropriate level of analysis because none of the adverse effects of the impacts are significant.

## IX. REFERENCE DOCUMENTS

The following documents have been utilized in the environmental review of this project and are considered to be part of the project file:

1. City of Choteau Wastewater System Preliminary Engineering Report, April 2012, prepared by DOWL HKM.
2. City of Choteau Wastewater Facility Plan Preliminary Engineering Report – Addendum 1: Bio-Dome Wastewater Treatment System &Land Application of Effluent Evaluation, December 2012, prepared by DOWL HKM.
3. Wastewater System Improvements City of Choteau Environmental Report June 2012, prepared by DOWL HKM.
4. Uniform Application Form for Montana Public Facility Projects, March 2013, prepared by City of Choteau.
5. City of Choteau Funding Scenarios/Budget (and General Correspondence), April 2014, prepared by DOWL HKM.

## X. AGENCIES CONSULTED

The following agencies have been contacted in regard to the proposed construction of this project:

1. The U.S. Fish and Wildlife Service reviewed the proposed project and determined that the proposed project is unlikely to adversely affect fish and wildlife resources under the purview of the U.S. Fish and Wildlife Service. They

further stated that any treatment option that improves the quality of effluent discharged to waters in the State of Montana are likely to be beneficial to fish, wildlife, and habitat resources.

2. The Montana Department of Natural Resources and Conservation (DNRC) was contacted on 1/11/2 regarding impacts to floodplains from the proposed project. No comments were received from the DNRC.

   The Teton County Planning Department reviewed the proposed project and stated that this project will require a floodplain permit. They stated the design appears to account for the flood hazard by elevating structures 2 feet or more above the base flood elevations given on FIRM panel 300168 0383 B, and that the design calls for a significant reduction in the footprint of the wastewater treatment facility. They stated that a joint application for proposed work in Montana's streams, wetlands, floodplains, and other water bodies must be completed and submitted to the Teton County Floodplain Administrator.

3. The Montana Historical Society's State Historic Preservation Office (SHPO) reviewed the proposed project. According to their records, there have been a few previously recorded sites and a few cultural resource inventories done within the designated search locales. SHPO stated that if any structure over 50 years old is to be altered, it is recommended that they be recorded and a determination of their eligibility for listing on the National Register of Historic Places be made. They indicated that "as long as there will be no disturbance or alteration to structures over fifty years of age we feel that there is a low likelihood cultural properties will be impacted". They felt that a cultural resource inventory is unwarranted at this time, but should structures need to be altered or if cultural materials are inadvertently discovered during this project, their office must be contacted and the site investigated.

4. The U.S. Department of the Army Corps of Engineers (USCOE) reviewed the proposed project. The USCOE is responsible for administering Section 404 of the Clean Water Act, which regulates the excavation or placement of dredged or fill material below the ordinary high water mark of our nation's rivers, streams, lakes or in wetlands. The USCOE stated that "based on the information provided, it appears that the project might involve work in jurisdictional waters of the U.S. under the authority of Section 404 of the Clean Water Act". They further stated that the project may qualify for coverage the DA Nationwide Permit 39 if less than 0.5 acres of wetland will be impacted. Otherwise an Individual Permit will be required and the project will need to go through the Public Notice Process and 404(b) (1) analysis.

5. The Natural Resources Conservation Service reviewed the proposed project. They stated the new wastewater treatment facility will "...have an impact on land classified as Farmland of Statewide importance". They further stated that "if this project is receiving federal funds, then a Farmland Conversion Impact Rating would need to be completed for [the site] under consideration".

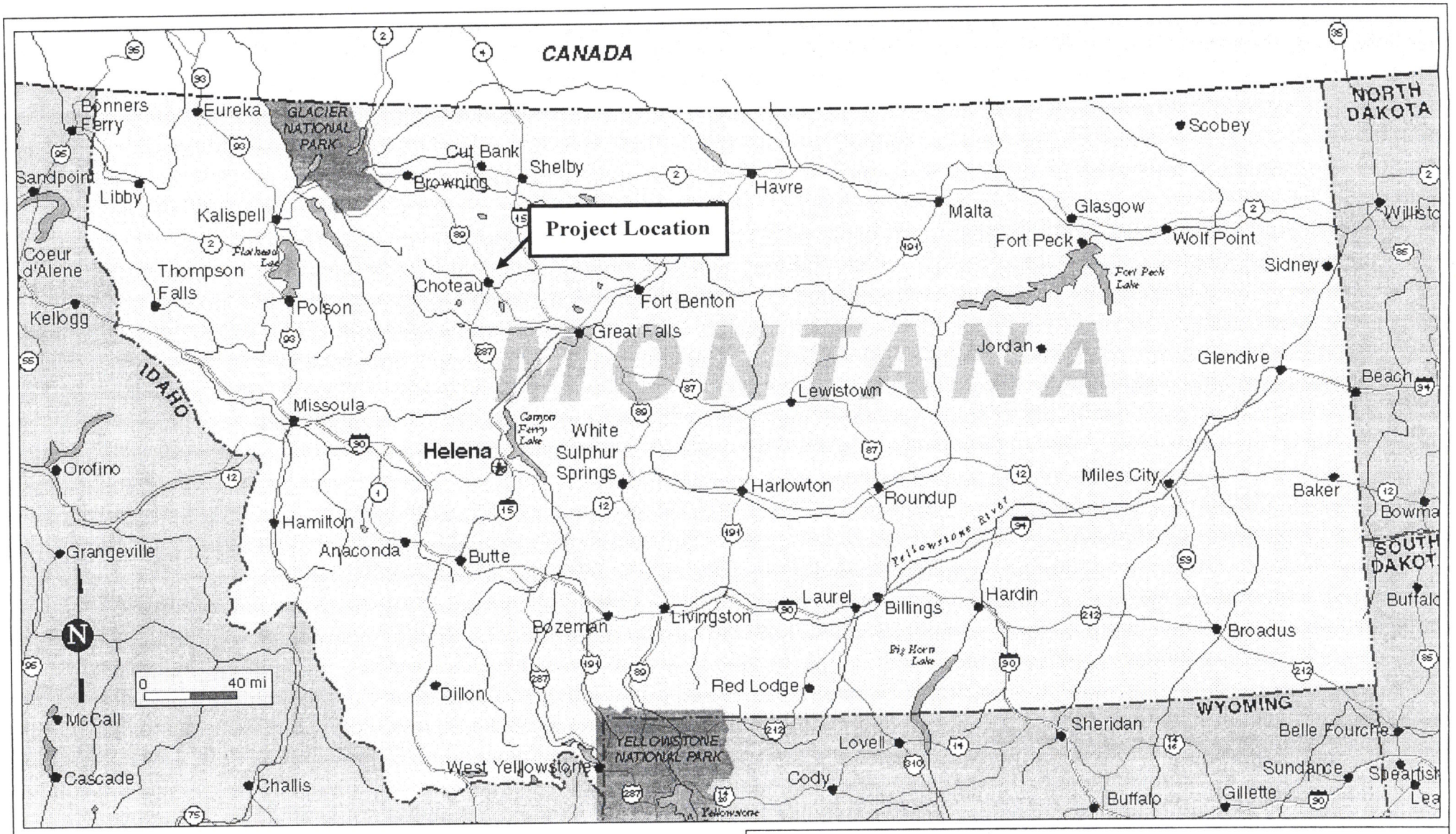
6. The Montana Department of Fish, Wildlife and Parks (FWP) was contacted on 5/28/12 and on 6/16/14 regarding impacts to fish and wildlife resources from the proposed project. FWP stated that they had no comments on the new facility relative to fisheries and were supportive of the plan to rehabilitate the existing lagoon to either grasslands or wetlands whichever local conditions supports. They stated in either case weed management for the first couple years will be important.

EA Prepared by:

Mike Abrahamson, P.E. — 6/19/14 Date

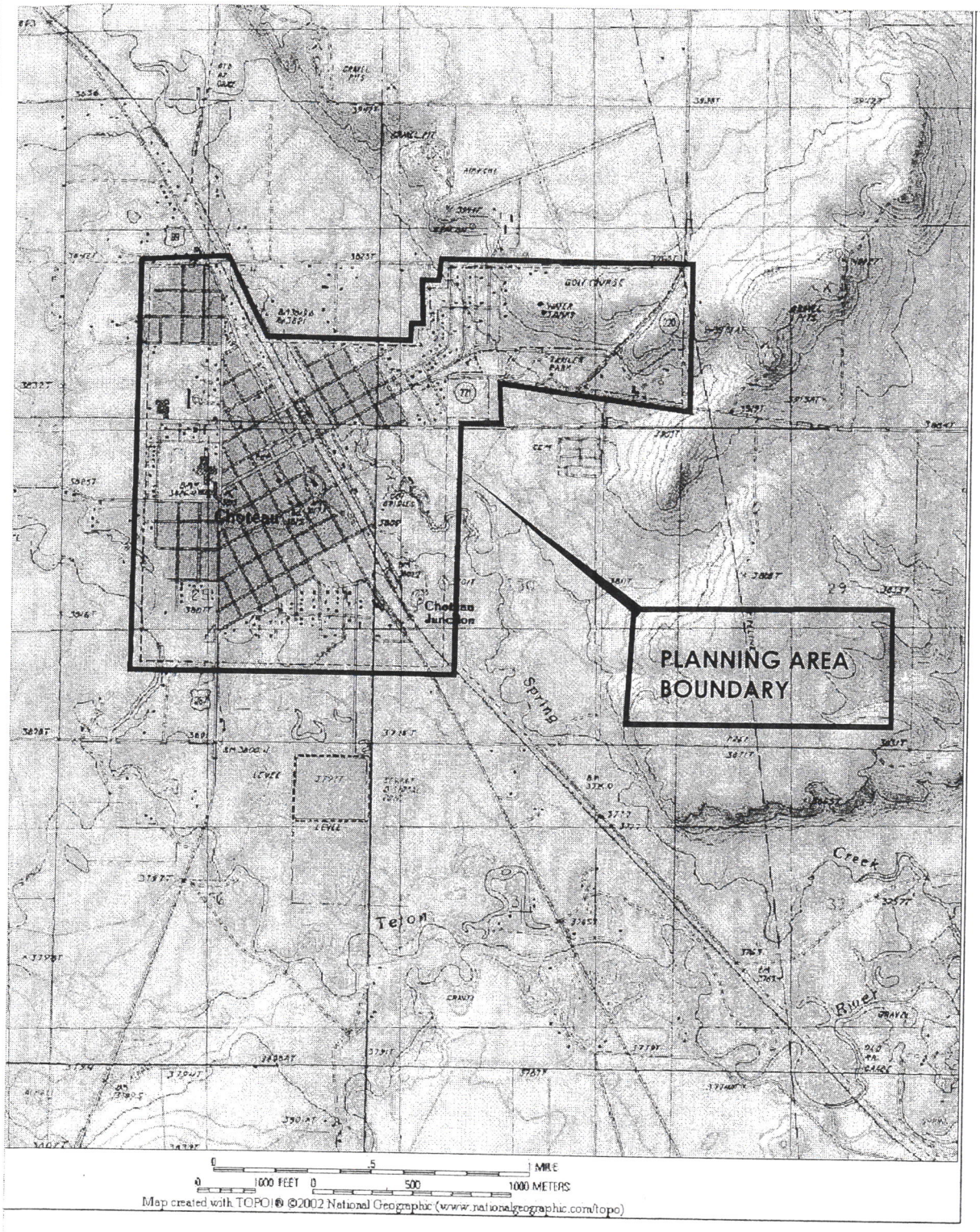
EA Reviewed by:

Jerry Paddock, P.E. — 6/19/14 Date




Montana Department of
ENVIRONMENTAL QUALITY

**Figure 1. Site Location Map – Choteau, MT**

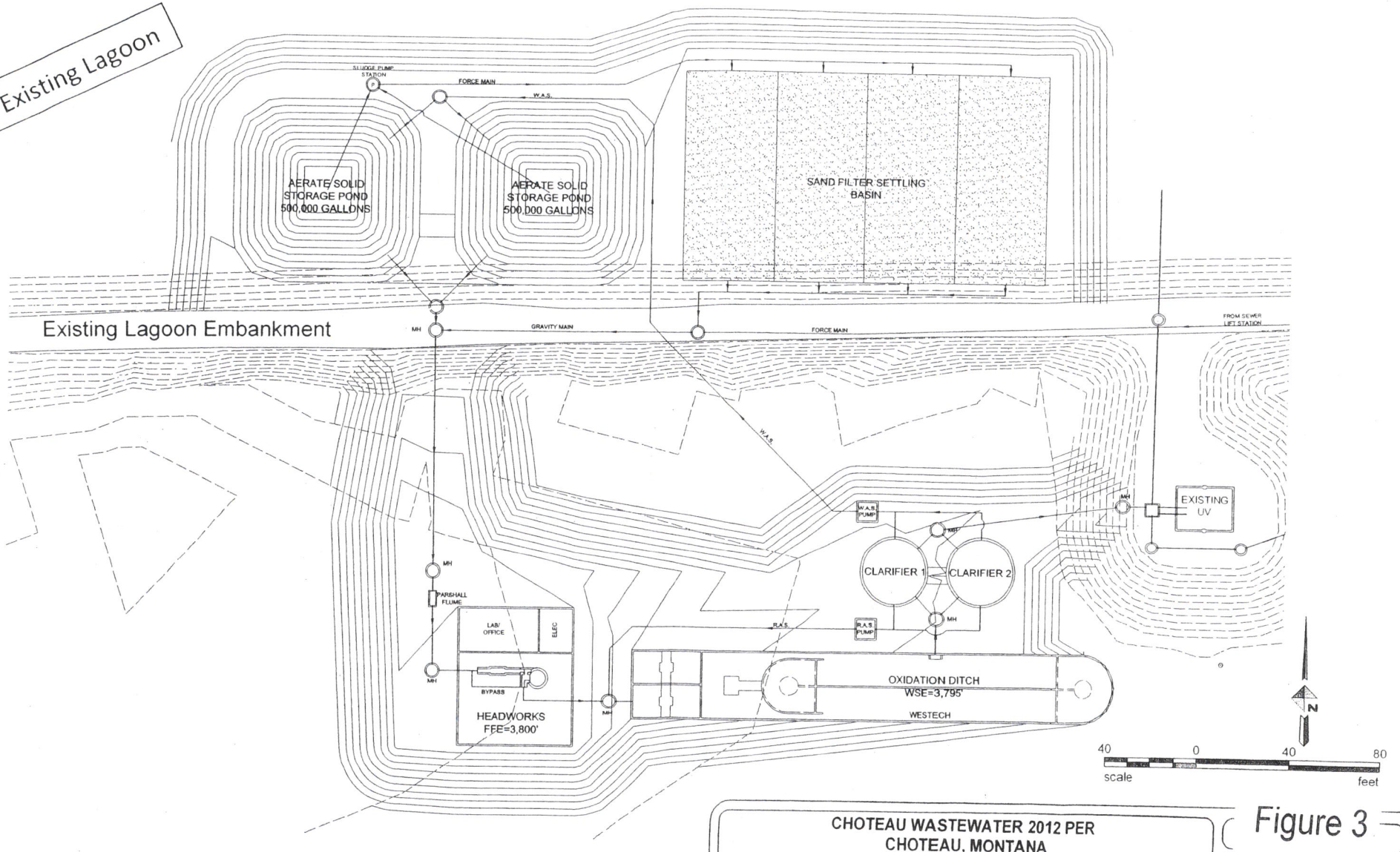



**CHOTEAU WASTEWATER SYSTEM IMPROVEMENTS**

**PRELIMINARY ENGINEERING REPORT**
**TOPO MAP & PLANNING AREA BOUNDARY**

Figure 2

HKM ENGINEERING

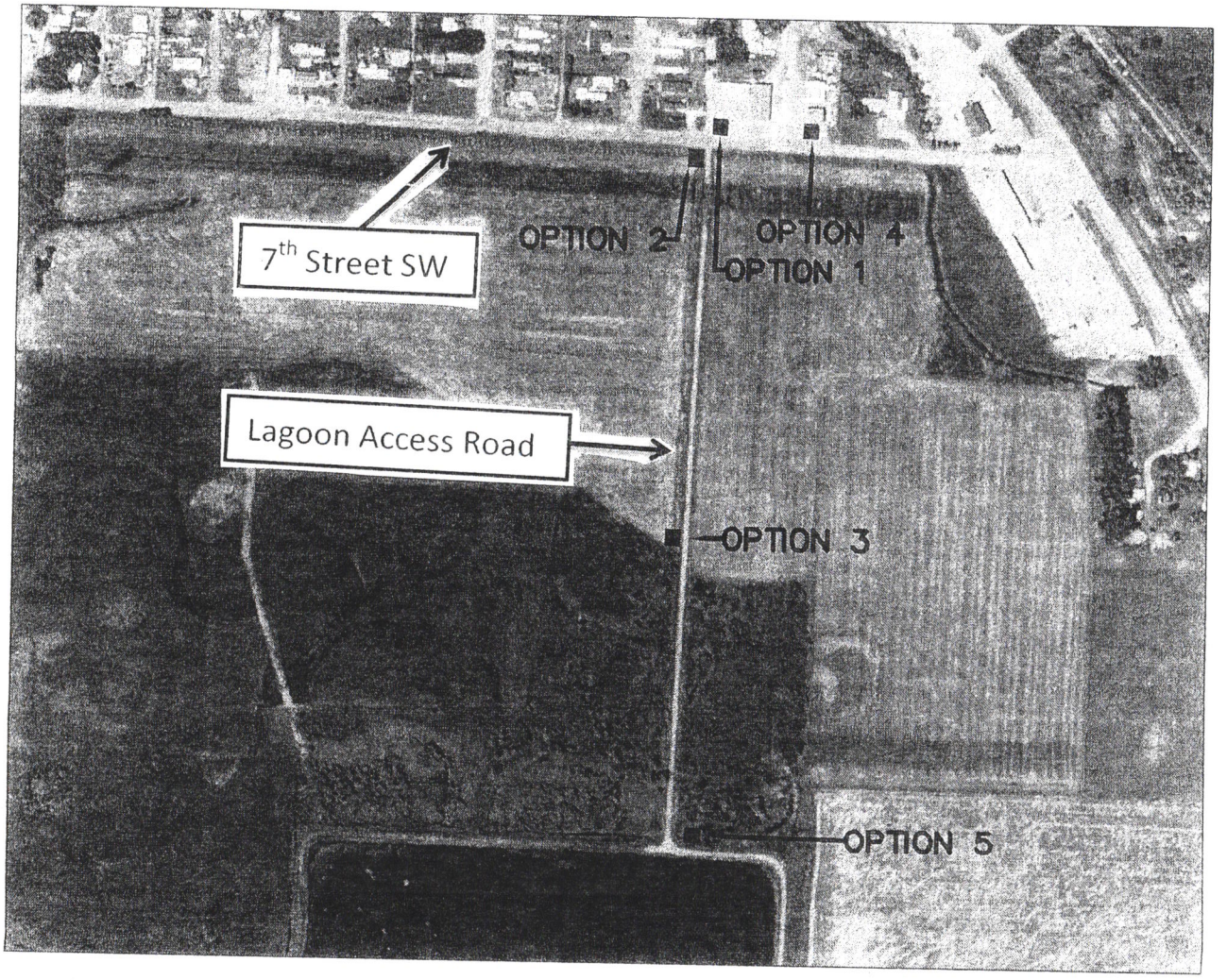



CHOTEAU WASTEWATER 2012 PER
CHOTEAU, MONTANA
PREFERRED ALT. - OXIDATION DITCH &
BIOSOLID HOLDING PONDS

Figure 3

DOWL HKM

4528.10945.01 | APRIL 2012




N

100 0 100
SCALE IN FEET

REVISIONS
REV | DATE | DESCRIPTION | BY

DOWL HKM

CHOTEAU SEWER LIFT STATION LOCATIONS
SITE LAYOUT
LIFT STATION LOCATION OPTIONS

PROJECT 432K.113801.01
DATE 04/07/2014

SHEET
FIG. 4

Figure 4